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# CONFERENCE 

ON
CLASSICAL STUDIES IN LIBERAL EDUCATION

HRLD AT

PRINCETON JNIVERSITY
SATURDAY, JUNE 2, 1917

SIX OPINIONS
SOME QUESTIONS AND ÅNSWERS MISLEADING STATISTICS

## SIX OPINIONS

I<br>Woodrow Wilson<br>\section*{President of the United States}

We should have scant capital to trade on were we to throw away the wisdom we have inherited and seek our fortunes with the slender stock we ourselves have accumulated. This, it seems to me, is the real, the prevalent argument for holding every man we can to the intimate study of the ancient Classics. . . . What you cannot find a substitute for is the Classics as literature; and there can be no first hand contact with that literature if you will not master the grammar and the syntax which convey its subtle power. Your enlightenment depends on the company you keep. You do not know the world until you know the men who have possessed it and tried its wares before you were ever given your brief run upon it. And there is no sanity comparable with that which is schooled in the thoughts that will keep. . . . All literature that has lasted has this claim upon us-that it is not dead; but we cannot be quite so sure of any as we are of the ancient literature that still lives, because none has lived so long. It holds a sort of primacy in the aristocracy of natural selection.

## II

## William Howard Taft $\boldsymbol{E x}$-President of the United States

1. I believe that the success of the Continental systems of education and of that in Great Britain establishes the fact that not only are the classical studies important as an essential element in the best liberal education along with mathematics, science, history, economics, philosophy and
modern literature but that the result of the Continental systems of eduction shows the practical value of such classical studies.
2. I am strongly in favor of continuing the classics in an academic education. I consider that, in addition to the mental discipline which study of them affords, they are the most helpful in the matter of correct English style, in laying sound foundations for grammatical construction, and in furnishing a basis for the study of all Modern Languages.

## III

## Theodore Roosevelt

## Ex-President of the United States

A cultural education must include the classics. It must not be based only on the classics. The Greek literature is one of the two noblest literatures in the world, the other being the English. Latin literature as such does not stand in the same rank with Greek; but it possesses an immense actual importance because the Latin civilization is the direct ancestor of modern occidental civilization, and because the Latin tongue was for fifteen centuries the cultural tongue of Europe. With one or the other, and if possible with both of these two classic languages and literatures, every liberally educated man should be familiar. He should also be familiar with at least one of the great modern culture-languages, such as French, Italian, German, Spanish or Portuguese, each of which has a noble literature. Every liberal course should also include a wide sweep of general history and pre-history also, for a liberal scholar should certainly have vividly in mind the tremendous drama of man's progress through the ages. A competent knowledge of science must also be part of any really liberal education; but this does not mean the science taught in order to turn out a commercial chemist, an engineer or an electrician. It means that the man of liberal education
should be a man who in addition to a broad classical training also possesses as broad a scientific training, that the primary facts of the universe in which we live are vivid in his mind and form an integral portion of his stock of knowledge. The man with such broad liberal training is perhaps not apt to be a technical expert in any special vocation; for his training stands outside the most direct line to pecuniary reward. Yet he has a great place to fill, for he has been fitted to become a leader in public thought, and a true interpreter to the people of the development and meaning of our civilization in its most important aspects.

Of course all this does not mean failure to recognize the prime importance of vocational or trade training for the great majority. Technique education is essential to the work of the world. The vast development of education along technical lines meets an urgent public need. But there are other needs also. "Man shall not live by bread alone." Certain institutions of higher learning ought to devote their attention to satisfying these other needs. It will be for the general welfare. In no other country is it so necessary as in ours to provide fully, for those who have the chance and desire to take it, broad and high liberal education, in which one essential element shall be classical training.

## IV <br> Grover Cleveland Former President of the United States

Grover Cleveland was inflexible in his belief in the indispensable value of classical studies both in college and in school education. During the period of his residence in Princeton he took much interest in the question of the curriculum and often talked over these matters, discussing the arguments of both sides. In fact his position was so resolute that he held that any failure to maintain the
classics as necessary studies in the college course would be a moral and legal violation of Princeton's charter.

Statement by Dean Andrew F. West, Princeton University.

## Robert Lansing Secretary of State

I am convinced that the study of the classics furnishes a man with mental processes which he cannot otherwise acquire, that it elevates him above the materialistic and gives him a loftier conception of the realities. Experience has proven that acquaintance with classical thought perfects the intellect and makes it able to enter the other fields of knowledge wih keener perception of the things which make life worth the living.

It is my opinion that the extension of classical studies in our institutions of higher learning should be generally encouraged. They are worth all the time and labor which can be given to them, because from them spring taste and refinement, the power and desire to enjoy the better things. These are characteristics of culture, and culture ought to be the chief end of a college or university education.

> VI
> Elihu Root
> Chairman of W ar Commission to Russia Former Secretary of State

President of the American Society of International Lawo
I am a firm believer in the value of studying Greek and Latin. Although in after life one may forget much that he has learned, he can never lose the influence upon his character. Even a slight appreciation of those wonderful races from whom so much of our civilization has come, gained by studying intently the very words they spoke and wrote, tends to broaden the student's vision and to enlarge his understanding of life.

## SOME QUESTIONS AND ANSWERS

I. The question is often asked: "Is Latin dying out in the Schools?

The answer is: For the last twenty-five years the study of Latin in the secondary schools of the country, far from diminishing, has been growing rapidly. Next after English, History, and Algebra, which are required of practically all high school pupils, Latin has now the highest enrollment of any secondary school subject.

Latin is taken by a larger number of pupils than French, German and Spanish combined, and by eighty per cent more than Physics and Chemistry combined.

Latin is the one language, except English, which is now most generally studied in our high schools and academies.

The following table, which gives the enrollment of pupils in the secondary schools of the United States from 1890 to 1915 at five-year periods, reproduces the statistics of the Report of the United States Commissioner of Education for 1916, Vol. II, page 489 :

|  | 1890 | 1895 | 1900 | 1905 | 1910 | 1915 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Enrollment | 297,894 | 468,446 | 719,241 | 780,909 | 817,653 | 1,291,187 |
| Eng. Lit. |  |  | 259,493 | 378,819 | 466,477 | 794,018 |
| Rhetoric |  | 146,672 | 237,502 | 379,266 | 462,711 | 718,075 |
| History | 82,909 | 162,336 | 238,134 | 318,775 | 455,200 | 664,478 |
| Algebra | 127,397 | 254,465 | 347.013 | 444,092 | 465,375 | 636,016 |
| Latin | 100,144 | 205,006 | 314,856 | 391,067 | 405,502 | 503,985 |
| Geometry | 59,781 | 114,813 | 168,518 | 219,083 | 252,404 | 346,064 |
| German | 34,208 | 58,921 | 94,873 | 160,066 | 192,933 | 312,358 |
| Physics | 63,644 | 103,768 | 118,936 | 123,282 | 120,910 | 184,426 |
| French | 28,032 | 45,746 | 65,684 | 89,777 | 95,671 | 136,131 |
| Chemistry | 28,665 | 43,607 | 50,431 | 55,414 | 58,290 | 98,516 |
| Spanish |  |  |  |  | 5,283 | 35,148 |
| Greek | 12,869 | 22,159 | 24,869 | 17,158 | 10,739 | 10,671 |

II. How do classical* pupils, as compared with nonclassical pupils, succeed in the college entrance examinations in all the non-classical subjects?

[^0]The answer is furnished by the comparative records of classical and non-classical students in the examinations of the College Entrance Examination Board for the last three years, 1914, 1915, and 1916. There were 21,103 candidates, and they took 52,145 examinations. The following facts, expressed in percentages, have been derived from a special investigation made by the Secretary of the College Entrance Board for this Conference. They are based upon the results of the examinations in all subjects except Greek and Latin:

## A. Ratings in all the Subjects

Candidates Who Obtained a Rating of 90 to 100 2.90 per cent of all the classical candidates 2.05 per cent of all the non-classical candidates The classical students show a superiority of 44 per cent. Candidates Who Obtained a Rating of 75 to 89 17.31 per cent of all the classical candidates.
12.31 per cent of all the non-classical candidates

The classical students show a superiority of about 40 per cent.

Candidates Who Obtained a Rating of 60 to 100
51.96 per cent of all the classical candidates
40.97 per cent of all the non-classical candidates

The classical students show a superiority of about 25 per cent.
B. Ratings in the Individual Non-classical Subjects

In all but one of the subjects taken by any large number of candidates, the classical students show a marked superiority over the non-classical. This is especially true in the case of the high ratings-the proportion of classical students attaining them being noticeably higher. The single exception is Physics, in which about one per cent more of the non-classical candidates than of the classical candidates passed the examinations. But the classical group excelled
the others in the higher grades even in Physics, the rating of 90 to 100 having been obtained by 7.64 per cent of the classical candidates and by 6.79 per cent of the nonclassical.

The number of candidates in the other subjects is too small to yield percentages of any significance. For example, Civil Government was taken by 65, Zoölogy by 58, Drawing by 224, Music by 36 , Biology by 235 , Botany by 111, and Geography by 160. But it may be noted that the non-classical students excelled somewhat in Civil Government, Zoölogy, and Drawing, while the classical candidates who obtained the rating of 90 to 100 in these subjects were more numerous; and that in Music, Biology, Botany, and Geography the classical candidates again excelled.

In English the classical candidates had an advantage, ranging from 300 per cent in the highest grades ( 90 to 100) to 58 per cent in the passing grade (i.e., 53 per cent of the classical candidates passed as against $33 \frac{1}{2}$ per cent of the non-classical.)

In Mathematics the classical candidates were more successful in all ratings, especially in the grade 90 to 100 , where they showed a superiority of 55 per cent ( 4.47 per cent, as compared with 2.81).

In Physics, as already noted, the classical students were slightly behind the non-classical, the inferiority in the highest rating being $2 \frac{1}{2}$ per cent ( 52.73 per cent as compared with 54.06 ). In Chemistry, on the other hand, their superiority was 12 per cent ( 51.94 per cent as compared with 46.37 ) in the case of those who passed the examinations.

In French and German the classical candidates were decidedly ahead in all grades for both subjects, their superiority in the highest grades being 39 per cent for French and 120 per cent for German.
III. What is the record of classical as compared with non-classical students in school and college studies?

How are classical students in school and college succeed-
ing in their studies generally? Are they falling behind the non-classical students, or keeping up with them, or going ahead of them? We present here the first returns from the schools and colleges whose records were pertinent or could be had before this meeting.

In institutions where Latin is required of all candidates for admission to any course of liberal studies, as in Princeton, and in schools where all the students take Latin, there is no basis for a comparison between the two classes of students concerned. In many schools and colleges the data required are not recorded or cannot be had without making an extended and expensive investigation, while in others the recording offices, in consequence of war conditions, are at present so overworked that they have had no time to compile the statistics needed. [In "Value of the Classics," a book issued by the Princeton University Press in October, 1917, large additions have been made to the results presented here.]

Nevertheless, the data thus far received from all the institutions where a comparison can be made are significant. Our reports cover the cases of 1345 classical and 2740 nonclassical students from eleven high schools and academies, and also of 1575 classical and 545 non-classical students from nine colleges and universities. They give us the following facts:

## A. High Schools and Academies

Students Recerving High Honors at Graduation 17 per cent of all the classical students. 10 per cent of all the non-classical students. The classical students show a superiority of 70 per cent.

## Students Receiving Honors at Graduation

18 per cent of all the classical students.
13 per cent of all the non-classical students.
The classical students show a superiority of 38 per cent.

Students Receiving Honors or Prizes for Debating, Speaking, or Essay Writing
2.75 per cent of all the classical students. 1.68 per cent of all the non-classical students. The classical students show a superiority of 64 per cent.
B. Colleges

Students Receiving High Honors at Graduation
13 per cent of all the classical students.
6 per cent of all the non-classical students.
The classical students show a superiority of 117 per cent.
Students Receiving Honors at Graduation
42 per cent of all the classical students.
27 per cent of all the non-classical students.
The classical students show a superiority of 56 per cent.

## Students Elected to Phi Beta Kappa

16 per cent of all the classical students.
7 per cent of all the non-classical students.
The classical students show a superiority of 129 per cent.

Students Winning Prizes or Honors for Scholarship in Other Than Classical Subjects
21 per cent of all the classical students.
8 per cent of all the non-classical students.
The classical students show a superiority of 163 per cent.

Students Serving on the Editorial Boards of Student Newspapers or Magazines
20 per cent of all the classical students.
12 per cent of all the non-classical students.
The classical students show a superiority of 67 per cent.

Students Acting as Members of Intercollegiate Debating Teams
7 per cent of all the classical students.
5 per cent of all the non-classical students.
The classical students show a superiority of 40 per cent.
The superiority of the classical students over the nonclassical in the academies and colleges from which information has been received is thus clearly indicated. [For an analysis of the statistics and a discussion of the reasons for the difference between these two classes of students see "Value of the Classics," published by the Princeton University Press.] We seem to be clearly justified in inferring, either that the better students prefer the classical courses, or that this course somehow gives the students who pursue it a better training, or that both are true. In any event, is it an argument against the classics that it is the more intelligent students who prefer these studies, and that it is the classical students who are generally more successful in the other studies?

## MISLEADING STATISTICS

May 28, 1917.
Dean Andrew F. West, Dear Sir:
At your request I have read Dr. Abraham Flexner's paper "A Modern School" for the purpose of examining his use of statistics.

Dr. Flexner holds that tradition determines the presentday curriculum, which for this reason fails, as a system of education, to meet the demands of modern life. He says on page six of his pamphlet:
> "It is perhaps worth while stopping long enough to show by figures the extent to which our current teaching fails. . . . We know that a large per-
centage of the better students of these subjects [referring to Latin, Algebra, and Geometry] try the College Entrance Examinations, and that for these examinations many receive special drill in addition to the regular teaching. Now in the examinations held by the College Entrance Board in 1915, 76.6 per cent of the candidates failed to make even a mark of 60 per cent in Cicero; 75 per cent failed to make a mark of 60 per cent in the first six books of Vergil, every line of which they had presumably read and re-read; 69.7 per cent of those examined in Algebra from quadratics on failed to make as much as 60 per cent; 42.4 per cent failed to make 60 per cent in plane geometry."
Dr. Flexner would have a "modern" curriculum with four main subdivisions,-science, industry, aesthetics, and civics (p.10). He says further (p.18):
"Neither Latin nor Greek should be contained in the curriculum of the Modern School. . . . A positive case can be made out for neither. . . . I have quoted figures to show how egregiously we fail to teach Latin. These figures mean that instead of getting orderly training by solving difficulties in Latin translation or composition, pupils guess, fumble, receive surreptitious assistance, or accept on faith the injunctions of teacher and grammar, The only discipline that most students get from their classical studies is a discipline in doing things as they should not be done."
A comparison of the passages just quoted with the figures as they stand in the Report of the College Entrance Examination Board makes it clear that the statistics have been misused in a very extraordinary way.

In the first place (as was pointed out by W. V. McDuffie, President of the Massachusetts State Teachers' Association, in the N. Y. Times of Feb. 5, 1917), Dr. Flex-
ner's statement that "a large percentage of the better students of Latin try the College Entrance Board Examinations," was probably not correct. On the contrary those who took these examinations were largely candidates not well qualified to pass the examinations of particular colleges, or to obtain certificates for entrance to those colleges which were in the habit of admitting on certificate. Dr. Flexner's figures have to do, then, not with the "better students" of Latin, as he contends, but with a group from which most or many of the better students had been eliminated, either by having taken the examinations of the particular institutions they intended to enter, or by having secured admission to college on the certificate plan.

Dr. McDuffie has also pointed out that in trying to show that Latin is not being successfully taught, Dr. Flexner did not take all the facts into account, but made an entirely improper selection from the data at hand. The figures (concerning Latin subjects) which Dr. Flexner had before him are here reproduced. They are found in the Fifteenth Annual Report of the Secretary of the College Entrance Examination Board, 1915, page 50.


The matters to be noted here are as follows: Of the total number of papers in Latin (5979) 59 per cent scored
 9, namely Cicero and the Aeneid. In these two subjects there were only 64 candidates (in each), as compared with 1210 in "Cicero and Sight" and 776 in "Vergil and Sight." In the two together there were only 128 candidates out of a total of 5979. But these two subjects are the ones selected by Dr. Flexner to show "how egregiously we fail to teach Latin."

The significant thing about the table is that 59 per cent of all papers submitted scored 60 or better. And if the statistics had included students offering Latin for entrance at the special examinations held by the college as well as at the examinations given by the Board, there is reason to think the showing would have been still better. At any rate it is clear that Dr. Flexner's figures as cited are not representative of the facts as disclosed by the table.

And a little further down in the column which Dr. Flexner had before him we find for Greek the remarkably high percentage of 76.1. Surely if we can infer from this column anything as to the success attained in teaching the various subjects, we must conclude that Greek and Latin are taught more successfully than almost any other subject. Dr. Flexner, omitting entirely the 76 per cent for Greek, leaves us with the quite erroneous impression that about 75 per cent of the candidates in the classical subjects fail to score as high as 60 per cent in their examinations. The figures really tell a very different story.

Very truly yours, Walter M. Adriance, Assistant Professor of Economics and Statistics, Princeton University.

Copies of this pamphlet may be had by addressing Dean Andrew F. West, Princeton, New Jersey.

The addresses at this Conference, with about three hundred opinions of men eminent in public affairs, business, education, law, medicine, science, engineering, journalism, and other subjects; together with some trustworthy statistics and other information, have been published by the Princeton University Press at $\$ 1.00$ a copy bound in boards, or $\$ 1.50$ bound in cloth. Discounts for orders of 25 copies and upwards will be made on application. All orders should be addressed to Princeton University Press, Princeton, N.J.


[^0]:    * The term "classical" as here used means candidates who offered Latin or Greek or both, "non-classical" those who offered neither Latin nor Greek.

